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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,271	03/31/2004	Kyusik Sin	K35R1807	8805

38214 7590 09/21/2005

WESTERN DIGITAL TECHNOLOGIES, INC.  
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EXAMINER

LUU, PHO M

ART UNIT	PAPER NUMBER
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2824

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/816,271

Applicant(s)

SIN ET AL.

Examiner

Pho M. Luu

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03/31/04</u> .  | 6) <input checked="" type="checkbox"/> Other: ____.                         |

### **DETAILED ACTION**

1. This office action acknowledges receipt of the following items from the Applicant:  
The Specification, Claims, Abstract, Drawing and filed on 31 March 2004.  
Oath or Declaration filed one 14 December 2004.
2. Claims 1-8 are pending.

### ***Information Disclosure Statement***

3. Acknowledgment is made of applicant's Information Disclosure Statement (IDS) Form PTO-1449, filed 31 March 2004. The information disclosed therein was considered.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it uses the phrase **"disclosed, in one aspect,"** in lines 2-3 and **"The method and system include"** in line 4, which is implied. Correction is required. See MPEP § 608.01(b).

6. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ooishi (P.G. Pubs No. 2004/0109348).

**Regarding claim 5**, Ooishi discloses, a magnetic memory (see FIG. 1) comprising:

a plurality of magnetic memory cells (see FIG. 2);

a bit line (BL, see FIG. 2), the plurality of magnetic memory cells being coupled to the bit line;

a plurality of digit lines (DL, see FIG. 2), the plurality of magnetic memory cells being associated with the plurality of digit lines;

a least one write circuit (Bit Line Drivers 11-12, Digit Line Drivers 17-18, current sources 13-16, see FIG. 7) configured to provide a bit line current in the bit line and to provided a plurality of digit currents in the plurality of digit lines in parallel at substantially the same time as the bit line current, the plurality of digit currents and the bit line current allowing the plurality of magnetic memory cells to be written to a plurality of states in parallel (see IDL and IBL between t1-t4 in FIG. 16, and paragraph [0076]).

**Regarding claim 6**, Ooishi also discloses, see FIG. 16 for reference, the bit line current is applied for first predetermined time (between t1 and t4) and the plurality of digit currents is provided for a second predetermined time (between t2 and t3) (if applying the concept of one bit line BL and 8 digit lines DLs as mentioned in paragraph [0076], IDL becomes IBL and vice versa).

**Regarding claims 7-8**, Ooishi does teach the first predetermined time t1-t4 is longer than the second predetermined time t2-t3, but not that the first predetermined time is 2 nanoseconds and second predetermined time is 1.6 nanoseconds.

However, it would have been obvious to one with ordinary skill in the art to realize that timing durations and pulse amplitudes in programming magnetic memory

cells are inversely proportional and they are all for design choices. Therefore, the choices of having the first predetermined time 2 nanoseconds and second predetermined time 1.6 nanoseconds can be obtained by adjusting the amplitudes of IDL and IBL.

**Regarding claims 1-4**, they encompass the same scope of invention as to that of claims 5-8, except they draft in method format instead of apparatus format. The claims are therefore rejected for the same reason as set forth above.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pho M. Luu whose telephone number is 571.272.1876. The examiner can normally be reached on M-F 8:00AM – 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Richard Elms, can be reached on 571.272.1869. The official fax number for the organization where this application or proceeding is assigned is 703.872.9306 for all official communications.

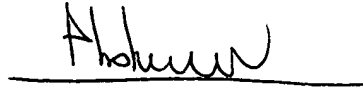
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

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<http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pl

PML  
16 September 2005

A handwritten signature in black ink, appearing to read "Pho M. Luu", written over a horizontal line.

Pho M. Luu  
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